

- B₁ / 1001 C₂*
1. (Amended) A method of screening drug candidates comprising:
 - a) providing a cell that expresses an expression profile gene selected from the group consisting of SEQ ID NOS: 51, 23 or a fragment thereof;
 - b) adding a drug candidate to said cell; and
 - c) determining the effect of said drug candidate on the expression of said expression profile gene.

2. A method according to claim 1 wherein said determining comprises comparing the level of expression in the absence of said drug candidate to the level of expression in the presence of said drug candidate, wherein the concentration of said drug candidate can vary when present, and wherein said comparison can occur after addition or removal of the drug candidate.

3. A method according to claim 1 wherein the expression of said profile gene is decreased as a result of the introduction of the drug candidate.

4. A method of screening for a bioactive agent capable of binding to a breast cancer modulator protein (BCMP), wherein said BCMP is BCH1 or a fragment thereof, said method comprising combining said BCMP and a candidate bioactive agent, and determining the binding of said candidate agent to said BCMP.

5. A method for screening for a bioactive agent capable of modulating the activity of a breast cancer modulator protein (BCMP), wherein said BCMP is BCH1 or a fragment thereof, said method comprising combining said BCMP and a candidate bioactive agent, and determining the effect of said candidate agent on the bioactivity of said BCMP.

Claims 6-8 have been cancelled without prejudice or disclaimer.

- B₂ / 1001 C₂*
9. (Amended) A method of diagnosing breast cancer comprising:

- b2
int
MML3
- a) determining the expression of one or more genes selected from the group consisting of a gene comprising the nucleic acid sequence of one of SEQ ID NOS: 51, 23 or a fragment thereof in a breast tissue sample of a first individual; and
b) comparing said expression to expression of said gene(s) in a second normal tissue type from said first individual or a second tissue type of a second individual;

wherein said comparison indicates that the first individual has breast cancer.

§3

15. (Amended) A method for screening for a bioactive agent capable of interfering with the binding of a breast cancer modulator protein (BCMP) or a fragment thereof, wherein said BCMP is BCH1, and an antibody which binds to said BCMP or fragment thereof, said method comprising:

- a) combining a BCMP or fragment thereof, a candidate bioactive agent and [and] an antibody which binds to said BCMP or fragment thereof; and
b) determining the binding of said BCMP or fragment thereof and said antibody.

Claims 16-34 have been cancelled without prejudice or disclaimer.

35. A method for determining the prognosis of an individual with breast cancer comprising determining the level of BCH1 in a sample, wherein a high level of BCH1 indicates a poor prognosis.

36. A method for determining whether an individual with breast cancer will be non-responsive to anti-estrogen therapies comprising determining the level of BCH1 wherein a high level of BCH1 indicates that an individual will be non-responsive.

37. A method of neutralizing the effect of a BCH1, or a fragment thereof, comprising contacting an agent specific for said protein with said protein in an amount sufficient to effect neutralization.

38. (New) The method of Claim 9, wherein said second normal tissue type from said first individual is breast tissue.

39. (New) The method of Claim 38, wherein a difference between expression in said breast tissue sample of said first individual and said second normal tissue type indicates that the first individual has breast cancer.

40. (New) The method of claim 9, wherein said second normal tissue type of said first individual is not breast tissue.

41. (New) The method of Claim 40, wherein a difference between expression in said breast tissue sample of said first individual and said second normal tissue type indicates that the first individual has breast cancer.

42. (New) The method of Claim 9, wherein said second tissue type of said second individual is normal breast tissue.

43. (New) The method of Claim 42, wherein a difference between expression in said breast tissue sample of said first individual and said second tissue type indicates that the first individual has breast cancer.

44. (New) The method of Claim 9, wherein said second tissue type of said second individual is breast cancer tissue.

45. (New) The method of Claim 44, wherein a similarity between expression in said breast tissue sample of said first individual and said second tissue type indicates that the first individual has breast cancer.

46. (New) The method of Claim 9, wherein said determining is by measuring RNA comprising the RNA equivalent of a sequence selected from the group consisting of SEQ ID NOS: 51, 23.

47. (New) The method of Claim 46, wherein said measuring utilizes a biochip comprising one or more nucleic acids comprising a nucleic acid sequence selected from the group consisting of SEQ ID NOS: 51, 23 or a fragment thereof.